Willamette Riverkeeper

September 26, 2002

Mr Chip Humphrey
Environmental Protection Agency
811 SW Sixth Ave.
Portland, OR 97204

Re: Comments on RI/FS Workplan

Dear Chip:

It has been over a month since we met. Both Regina Skarzinskas and me appreciated your commitment to better inform those groups, like Willamette Riverkeeper, that are not privy to weekly meetings between the Lower Willamette Group and EPA, about key decisions.

That being said, it seems we have heard little more that we have in the past. This is difficult for us because it appears decisions are being made quickly, without the ability for groups like ours to review materials that would normally be associated with such a project – even unofficially. I hope that we can figure out a way to deal with this aspect of the project.

We have multiple comments regarding the RI/FS workplan. It is likely that you have dealt with some of these based on our earlier conversations, but this letter should reiterate some of our questions and thoughts.

We have reviewed Volume I and Appendices A – E of the Portland Harbor RI/FS Workplan (June 7, 2002) and offer the following comments.

General Comments on Volume I

1. GUIDANCE: It seems that the ecological and human health risk assessments do not incorporate DEQ guidance. As the upland work is directed by DEQ and this project is within the State of Oregon, it is our feeling that Oregon rules and guidance should be incorporated into the document where available and applicable.

2. DOCUMENTATION: The document is based on several key decisions for which adequate documentation/explanation is not provided. For instance, the rationale behind the selection of the ISA is inadequate

and incomplete in our view. Furthermore, how and under what conditions the ISA will be expanded is unclear, how the selection of the ISA impacts the ecological and human health assessments is not addressed, and documentation of how Native American cultural practices and subsistence-level receptors will be addressed is unclear.

3. INCONSISTENCIES: The document states that Native American scenarios will be qualitatively addressed, however the human health risk assessment document implies a quantitative approach.

General Comments- Appendix A, Technical Memoranda, Field Sampling Plan

1. DOCUMENTATION: "Preliminary screening criteria" should be more adequately defined, or at least sources to be considered should be presented. The CRITFC study indicates that lamprey is an important species for Native Americans, however Table 2-1 in the Field Sampling Plan indicates that this will not be a species considered in the HHRA, documentation should be provided as to why this is not being considered and what species will serve as a surrogate.

2. INCONSISTENCIES: The RAO Tech Memoradum states that surface water will not be considered in the risk assessment, but will be considered in the development of RAOs. The risk assessment indicates that surface water is a complete pathway and will be quantitatively addressed. Table 2-1 of the Field Sampling Plan indicates that lamprey will not be considered in the HHRA, however it does appear in Appendix D Table 5-1 "Relationship between assessment endpoints and measures of exposure and effects."

General Comments – Appendix C

1. GUIDANCE: The Ecological Risk Assessment being conducted for the in-water portion of the Portland Harbor Superfund Site should be consistent with the ecological risk assessments being conducted for the uplands areas. Oregon rules and guidance should be incorporated into the process where applicable or adequate documentation and a discussion of the impact of electing one approach over the other should be included. Oregon requires that Federal and State threatened, endangered and sensitive species be protected at the individual level; all others at the community level. Where is this addressed in the document? DEQ guidance requires a multilevel screening approach. Screening Tables have been developed by DEQ and where applicable these tables should be used. DEQ requires the use of the 90 UCL

2. DOCUMENTATION: Is the use of the ISA boundaries appropriate for the ecological assessment? The text clearly states that habitats are more diverse outside of the ISA boundaries. Where are coves, lagoons,

slips being incorporated into the eco assessment? According to the text only 5 of the 15 habitats identified along the Superfund site are included in the ISA, how will the other habitats been considered? What about future conditions, development of the water front area as a park and possibility of additional receptors and habitat in the ISA in the future? How are threatened, endangered and sensitive species being addressed in the ecological risk assessment. Most of the discussion seems to be focused on evaluation of target species at the community/ population level. When determining the SUF, what area is being considered the ISA or the entire site? The Risk Characterization section should clearly delineate receptors evaluated on a community level from those evaluated on an individual level.

3. INCONSISTENCIES: The text states that reptiles and amphibians are poorly characterized in the study area and may or may not be considered. Table 2-8 "Species of special interest in the ISA" lists several amphibians/reptiles. As these need to be considered on an individual level in the ecological assessment. Reptiles and amphibians should be included in Section 4.4 and Appendix C, Attachment 1.

General Comments – Appendix D

1. GUIDANCE: The Human Health Risk Assessment being conducted for the in-water portion of the Portland Harbor Superfund Site should be consistent with the human health risk assessments being conducted for the uplands areas. Oregon rules and guidance should be incorporated into the process where applicable or adequate documentation and a discussion of the impact of electing one approach over the other should be included. While comparison with background is an appropriate prescreening step, the lack of a background number is not justification for eliminating a chemical. The DEQ PHSMP was not a risk assessment document, and therefore risk assessment guidance did not apply. Chemicals for which no background screening level exists must be retained. DEQ guidance requires a multilevel screening approach using the Region IX PRGs. DEQ requires the use of the 90 UCL in calculating EPCs.

Exposure and intakes for a transient living along the river would be more consistent with those of a camping scenario rather than residential or gardener. Transients living in tents or outside have a much higher exposure (dermal, inhalation and ingestion) to soils, and it must be considered that surface water is a source of "domestic" water. Therefore skin surface area should be more consistent with swimming or bathing.

2. DOCUMENTATION: The development of a risk conceptual site model begins with an evaluation of all potential receptors and pathways. Receptors and pathways that are eliminated must be documented. Divers

are important occupational receptors for the Willamette River, not only in terms of ship repair, but search and rescue as well. These receptors should be retained. It is my understanding OHSU is developing default inputs for this receptor. Likewise, in other risk assessments that considered Native American Exposures, the use of river water in a sweat lodge scenario is an important and complete pathway for surface water. It is unclear whether "non-tribal" fisher represents other high consumers of fish based on ethnic backgrounds or a subsistence fisher. A subsistence fisher/family should be included in the quantitative evaluation if this is not covered under the "non-tribal" scenario.

3. INCONSISTENCIES: The CRITFC study determined that Native American Fish Consumption rates are 194g/day for adults and 81 g/day for the child, this is inconsistent with the consumption rates in Tables 16 and 17 of Appendix D.

Specific Comments - Volume I

1. Section 6.2.1 Page 69 - The purpose of a nature and extent evaluation is to determine the types of contaminants present and their vertical and horizontal distribution not merely identifying hot spots.

2. Section 6.4 Page 73 - The human health risk assessment should be conducted in accordance with EPA and DEQ guidance. DEQ requires some additional screening and analysis beyond that in RAGS.

3. Section 7.3 Page 80 - Although determining whether chemical contamination extends beyond the ISA is identified as a data need in this section, it is unclear from Table 7-3 how this is to be accomplished.

4. Table 7-3 - How will consistency with DEQ be ensured. A workplan or requirements for DEQ workplans to ensure that data collected is usable for the in-water portion should be provided in this report.

5. Section 7.6 Page 84 and Table 7-1 - How will data be gathered for determining quantity and types of fish and shellfish ingested. Shouldn't this be done before selecting the target species. What data area already available on fish consumption and how will they be used? 6. What about plants, in particular, Wapato which is an important plant species for Native Americans? What information will be gathered on other important plant species and how will it be used?

6. Section 7.7 Page 85. - In addition to the potential for recontamination from upland sources, what about recontamination from redistribution if sediments due to river flow? How will information on sinks and scoured areas be incorporated into this evaluation?

7. Table 7-4. - What about other constituents in groundwater, in particular those that are persistent and bioaccumulate ? What about indirect pathways of exposure?

8. Table 7-10 - Important plant species should be added to the table. The process for determining species of importance for human health should be identified and the selection process clearly delineated. For instance, fish consumption surveys have identified sturgeon as an important species which is consumed by sportsfishermen, yet it is not included as a target species for human health.

Specific Comments – Appendix D

9. Section 2.3.1.1 - Page 5 If concentrations of Arsenic exceed background, it should be retained as a COPCs and quantitatively addressed in the risk assessment. Discussion of background and associated risks may be qualitatively addressed in the uncertainty section, but that does not preclude a quantitative assessment.

10. Section 2.3.1.3 Page 6; Section 2.3.2.2 Page 7 - DEQ guidance requires consideration of multiple chemical and multiple media screening in addition to individual constituent screening against PRGs.

11. Section 2.3.3 - Please confirm that HHSVs were set using the risk based criteria of ECR = /<1E-06 and HI=/<1.0.

12. Section 3.1 Page 9 - What about divers? What about consumption of plants? Do these scenarios include child/adult/pregnant and/or nursing women? What about workers dredging the river or remdiating sediments?

13. Section 3.2 - Page 11 What about plants?

14. Section 3.2.2.2 and 3.2.2.3 Page 13? - What about divers, or dock workers that have to go into the water for ship repair or maintenance? Contact with sediment and surface water would not be an insignificant pathway for these receptors.

15. Section 3.2.3 Page 14. - While only adults have been observed, children should be considered as future receptors.

16. Section 3.2.3.2 Page 14. - If contact with sediment is considered complete and significant, how can contact with surface water be considered insignificant, especially since nature and extent of contamination have not yet been clearly defined. This pathway should be retained.

17. Section 3.4 - DEQ guidance requires the use of the 90 UCL.

18. Section 3.5.1.2 Page 24. - Exposure to soils are expected to be higher for a transient population that may be living with or without temporary shelters. Intake values therefore should be higher than that of a resident and closer to a camper scenario. Why is skin surface area contact limited to 3 months duration if one is assuming 6 months residence time?

19. Section 4.4 Page 36. - EPA and DEQ has developed a Margin of Exposure analysis for dioxins and furans at other Oregon sites. Noncancer health effects from these chemicals should be evaluated using this methodology.

20. Section 5.2 Page 39. - Oregon Law requires that individual carcinogens may not exceed a 1 in one million excess cancer risk (ECR) ; aggregate risk for multiple carcinogens may not exceed an ECR of 1 in one hundred thousand and no individual constituent can exceed a one in one million ECR. An ECR of one in ten thousand constitutes a "hot spot" wherein a preference for treatment must be considered in the Feasibility Study.

21. Please clarify the last sentence.

22. Tables 7 – 20 DEQ requires that both the CTE and the RME individual be quantified where information is available. May of the proposed intake values in these tables are not consistent with DEQ guidance.

Fish Species Collected

Given the numerous sturgeon that are fished for and caught by people on the Lower Willamette, especially within the ISA area, it seems that this species should be collected and evaluated. While we understand that this species migrates, it also seems that they spend enough time in the Lower Willamette to make them worthy of collection. This is important given the degree to which they could contain various constituents, and the degree to which people consume them.

We appreciate the opportunity to comment on the RI/FS workplan. If you have any questions about these comments, feel free to call us at 503-223-6418.

Sincerely,

Travis Williams

Willamette Riverkeeper

Regina Skarzinskas, MPH